IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant:	Otter
Serial No.:	10/643,660
Filed:	August 19, 2003
Group Art Unit:	37430
Examiner:	Duong, Tho V.
Title:	COATED CONDENSING HEAT EXCHANGER

Mail Stop Appeal Brief- Patents
Commissioner for Patents
P.O. Box 1450
Alexandria VA 22313-1450

REPLY BRIEF

Dear Sir:

This is in response to the Examiner's Answer mailed August 2, 2007. The Examiner's Answer raises several arguments that require a brief response.

Claims 27, 28 and 31-35

The Examiner states that both Boah and Keneipp Jr. are in analogous art as both relate to corrosion. Applicant respectfully disagrees. A heat exchanger and an oil transport pipeline are not analogous art. A heat exchanger is employed to exchange heat between a first fluid and a second fluid, heating one of the fluids and cooling the other of the fluids. An oil pipeline is used to transport oil from one location to another. Heat exchange is not a part of this transfer. One seeking to solve problems in the field of heat exchangers would not consider references that relate to transporting oil.

Additionally, neither reference discloses using a melted polymer to form a film as claimed. The Examiner states that these are product by process claims that are limited by the product itself. However, neither reference discloses a melted polymer. This is a structural feature. The claims recite a material applied in a first state (a melted state) that form a second state (a film). Boah does

not suggest a polypropylene layer applied to a blank 61 as a melted polymer. In Keneipp Jr., a tubular liner 18 is forced into a pipeline 2 to line the pipeline 2. The tubular liner 18 is therefore solid and cannot be applied to the pipeline 2 as a melted polymer. Neither reference discloses the structural features of a melted polymer.

Claim 29 and 37

Boah and Keneipp Jr. are silent on how a laminate is applied to a heat exchanger. In Keneipp Jr., a tubular liner 16 is inside a pipeline 2, and a liquid forced into the system causes the tubular liner 16 to turn inside out to line the pipeline 2 (column 3, lines 18 to 26). No heater is needed to heat the surfaces of the pipeline 2 because the tubular liner 16 is basically wrapped around the inner surface of the pipeline 2 and secured at its ends. The Examiner states that claims 29 is a product by process claim. However, the claims require a heater, and neither reference discloses the structurally required heater to heat surfaces of the pipeline 2 to attach the tubular line 16. Nor is a heater needed to attached the tubular liner 16. The references taken together do not suggest the claimed invention.

Claim 30 and 38

Boah and Keneipp Jr. are silent on how a laminate is applied to a heat exchanger. In Keneipp Jr., a tubular liner 16 is inside a pipeline 2, and a liquid forced into the system causes the tubular liner 16 to turn inside out to line the pipeline 2 (column 3, lines 18 to 26). No roller is employed or even needed to attach the tubular liner 16. Additionally, a roller cannot be employed as the tubular liner 16 is located inside the pipeline 2. A roller would not be able to adhere the tubular liner 16 inside the pipeline 2 as it could not fit. The Examiner states that claims 30 is a product by process claim. However, the claims require a roller, and neither reference discloses the structurally required roller to attach the tubular liner 16. Nor can a tubular liner 16 be employed. The references taken together do not suggest the claimed invention.

Claims 36 and 39-43

The Examiner states that both Boah and Keneipp Jr. are in analogous art as both relate to corrosion. Applicant respectfully disagrees. A heat exchanger and an oil transport pipeline are not analogous art. A heat exchanger is employed to exchange heat between a first fluid and a second fluid, heating one of the fluids and cooling the other of the fluids. An oil pipeline is used to transport oil from one location to another. Heat exchange is not a part of this transfer. One seeking to solve problems in the field of heat exchangers would not consider references that relate to transporting oil.

Additionally, neither reference discloses using a melted polymer to form a film as claimed. The Examiner states that these are product by process claims that are limited by the product itself. However, neither reference discloses a melted polymer. This is a structural feature. The claims recite a material applied in a first state (a melted state) that form a second state (a film). Boah does not suggest a polypropylene layer applied to a blank 61 as a melted polymer. In Keneipp Jr., a tubular liner 18 is forced into a pipeline 2 to line the pipeline 2. The tubular liner 18 is therefore solid and cannot be applied to the pipeline 2 as a melted polymer. Neither reference discloses the structural features of a melted polymer.

The claimed invention is also not obvious because neither reference discloses, suggests or teaches a heat exchanger component including a film formed from a melted polymer that is one of polyetherimide, polyethersulfone, polysufone and polyimide. Neither Boah nor Keneipp Jr. teaches employing these materials, and therefore the references together do not disclose, suggest or teach these materials as a film on a metal surface as claimed. Boah only teaches employing polyethylene, polypropylene or polyester as a corrosion-resistant material. Keneipp Jr. only discloses the use of polyethylene, polypropylene, unsaturated polyester, Teflon, Saran and the like. Neither reference discloses a melted polymer that is one of polyetherimide, polyethersulfone, polysufone and polyimide.

The Examiner states that the drawback referred to in paragraph 4 of polypropylene is irrelevant to the claimed apparatus. However, paragraph 4 supports that the claimed materials are not equivalent to polypropylene as disclosed and are not equivalent to the materials disclosed in

Boah. Therefore, the combination of the references cannot disclose, suggest or teach the claimed invention.

Respectfully Submitted,

CARLSON, GASKEY & OLDS, P.C.

/Karin H. Butchko/
Karin H. Butchko
Registration No. 45,864
Attorney for Appellant
400 West Maple Road, Suite 350
Birmingham, Michigan 48009
(248) 988-8360

Dated: October 2, 2007